

REMARKS

Applicant is in receipt of the Office Action mailed May 6, 2003. Claims 1-5, 13-20, 25 and 26 were rejected under §102(e) as being anticipated by Perry et al.

Applicant has carefully reviewed the Perry reference and the Response to Arguments provided in the Office Action. In response to the Response to Arguments contained in the Office Action, Applicant has amended certain of the present claims to clarify that the image acquisition device and/or object detector physically detects the presence or absence of an object. In other words, the image acquisition device and/or object detector does merely capture image data which may or may not contain an object, and then rely on software to determine if an object is actually present. Rather, the claimed method physically detects object presence or absence. As discussed in the application specification at page 6 beginning at line 20, the specification notes that "the object detector may employ any of a variety of detection technologies." For example, the object detector may be based on the reflection and/or transmission of acoustic, light, or electromagnetic energy." This operation of the system described in the present application is substantially different than that taught in the Perry reference.

As discussed in the prior response, the Perry reference does not physically detect the presence or absence of an object at all. Rather, the Perry reference includes a "spaced sensor 92, such as a shaft encoder, which senses the speed of the input conveyor 14." The spaced sensor 92 operates to trigger the video cameras such that the "belt travels a fixed distance between scan lines." The Perry reference does not include any type of object detector or image acquisition device which physically detects the presence or absence of an object. Rather, Perry requires a software program that "will process the input data to determine whether there is an object in the field of view for this set." See Perry at col. 5 lines 20-22. Thus, Perry suffers from the limitations of the prior art discussed in the present application, i.e., host CPU resources are required to detect presence and absence of objects, and further in many cases image data will be acquired and analyzed that does contain an object of interest. For example, Perry further states that "the purpose of the video acquisition and detection software component 88 is to acquire scan lines of video data from the line scan CCD cameras, detect the presence of

an object, and to pass the scan lines that contain significant information to a video processing software component 90.” See Perry col. 5 lines 11-15.

Therefore, Applicant respectfully maintains that Perry does not teach or suggest any type of mechanism for physically detecting presence or absence of an object. The element 92 relied on by the Office Action merely triggers cameras at fixed intervals, regardless of whether an object may or may not be present or absent. This is clear because Perry requires a software component to process the input data “to determine whether there is an object in the field of view ...”. Perry instead teaches a software mechanism to actually detect the presence or absence of an object. Again, Applicant submits that this is similar to the prior art systems described in the background section of the present application. Applicant submits that this prior art operation taught in Perry is significantly different from the method of the present application, wherein the physical detection of the presence and absence of objects can be used to reduce the amount of image data acquired and analyzed and hence reduce host processing requirements. Accordingly, Applicant submits that the present claims as amended are allowable.

CONCLUSION

In light of the foregoing amendments and remarks, Applicant submits the application is now in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel PC Deposit Account No. 50-1505/5150-36800/JCH.

Also enclosed herewith are the following items:

☒ Return Receipt Postcard

Respectfully submitted,



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